



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 5
77 WEST JACKSON BOULEVARD
CHICAGO, IL 60604-3590

AUG 29 2016

REPLY TO THE ATTENTION OF:
WW-16J

Tiffani Kavalec, Chief
Division of Surface Water
Ohio Environmental Protection Agency
P.O. Box 1049
Columbus, Ohio 43216-1049

Dear Ms. Kavalec:

The U.S. Environmental Protection Agency has conducted a review of Ohio's draft 2016 Integrated Report (IR), including Ohio's Clean Water Act Section 303(d) list of impaired waters, which is on public notice through August 29, 2016. We are writing to provide EPA's comments regarding Ohio's Section 303(d) list, as well as comments and commendations for other matters related to the draft IR.

Comments on Lake Erie Listing related to nutrients and Harmful Algal Blooms

Harmful Algal Blooms (HABs) have become increasingly pronounced in Lake Erie in recent years, causing direct impacts on Toledo's drinking water system in 2014. Concerns about nutrient pollution and HABs have led to increased efforts to control nutrients, especially phosphorus, from entering the Lake. Such efforts include the Ohio Lake Erie Phosphorus Task Force, the Western Basin of Lake Erie Collaborative Agreement between Ohio, Michigan and Ontario, and the development of nutrient loading targets under Annex 4 of the Great Lakes Water Quality Agreement between the United States and Canada.

In its 2014 IR, Ohio listed for the first time the shoreline areas of the Western Basin of Lake Erie as impaired due to microcystin in public drinking water supply intake zones. In the draft 2016 IR, Ohio has expanded upon this approach by proposing to add the shoreline areas of the Central Basin and the Western Basin Islands to the impaired waters list for the drinking water supply designated use. EPA commends Ohio EPA for this action.

In its 2014 IR, Ohio EPA proposed a new approach for Lake Erie with new assessment units and methodology for the nearshore and open waters to be used in future listing cycles. Such an approach would provide for a comprehensive assessment of Ohio's Lake Erie waters. However, for reasons discussed in the 2016 draft IR, Ohio EPA does not intend to assess the open waters of either the Western Basin or Central Basin for impairment at this time. The draft IR states "Ohio EPA believes that assessment and listing of the open waters under the CWA should be led by

U.S. EPA in consultation with the states and Ohio is willing to assist its federal partners with the development of appropriate monitoring and assessment protocols for the open waters.”

We note that the responsibility to assess Ohio’s waters, including the State’s open waters of Lake Erie, and determine whether or not they are meeting Ohio’s water quality standards, is specifically a state responsibility under the CWA. (See Clean Water Act Section 303(d)(1)(A) and 40 CFR 130.7(d)(1)). EPA’s role is to review and either approve or disapprove the state’s list of impaired waters. (See 40 CFR 130.7(d)(2)).

Ohio EPA needs to assess all of its waters in the Western and Central Basins of Lake Erie for all applicable water quality standards as defined at 40 CFR 130.7(b)(3). Such standards include numeric criteria, narrative criteria, waterbody uses, and antidegradation requirements. In particular, the state should assess against its narrative standard at 3745-1-04(E):

The following general water quality criteria shall apply to all surface waters of the state including mixing zones. To every extent practical and possible as determined by the director, these waters shall be: ... (E) Free from nutrients entering the waters as a result of human activity in concentrations that create nuisance growths of aquatic weeds and algae ...

In assessing whether the state’s applicable water quality standards are being met, Ohio EPA should assemble and evaluate all existing and readily available water quality-related data and other information to evaluate for factors such as:

- The extent of algal coverage
- Chlorophyll a concentrations
- Impacts to recreation, including fishing and beach warnings and closures
- Impacts to industry and commerce, including the commercial fishing and charter boat industry
- Impacts to drinking water, including additional costs to water treatment to treat for algal toxins, and impacts to residents served by water utilities
- Impacts to retail business, including restaurants and hotels
- Impacts to aquatic life

Ohio EPA should also consider the applicability of other numeric and narrative Water Quality Standards to Lake Erie. Ohio EPA should assess the open water of Lake Erie to determine whether or not the lake is meeting all applicable standards, and where it is not, list the appropriate impairments on its final 2016 303(d) list.

Comments on Ohio River and ORSANCO

Page D-5 discusses Ohio EPA’s evaluation of the Ohio River. Paragraph three includes the statement “Ohio EPA defers to the ORSANCO analysis and the list of impaired Ohio River segments found in 2014 Biennial Assessment of Ohio River Water Quality Conditions (ORSANCO 2014).” EPA has concerns that Ohio EPA is incorporating the Ohio River Valley Sanitation Commission (ORSANCO) methodology and assessment document for determining impairment of the Ohio River into its 2016 Section 303(d) list:

First, there may be exceedances of Ohio's numeric target for the Ohio River that are not being captured as Category 5 on Ohio's list if the state is relying on the approach being used by ORSANCO's support its 2014 Biennial Assessment of waters. ORSANCO's approach is intended as a 305(b) monitoring and assessment documentation of methodology and results, and is not intended to identify impaired waters in compliance with 303(d) requirements.

Second, for Aquatic Life Use (ALU) impairment status, Ohio EPA requires all sampling locations to meet ALU indices on a large river assessment unit for that river to attain water quality standards using pools (i.e., distance between dams; ranging from 6-95 miles) as the assessment unit. However, ORSANCO aggregates its data collected in a given pool such that a rating of poor in one sampling location within a pool would not necessarily result in that pool determined as not supporting a use. Further, ORSANCO uses the fish community monitoring to determine support of ALU rather than the instream water chemistry. Thus relying on ORSANCO's methodology may lead to a conclusion that the entire river is supporting ALU¹ when a review of chemical data would lead to a different conclusion. For these reasons EPA requests that Ohio EPA conduct its own assessment of the Ohio River using ORSANCO's data and list those river segments that are determined to be impaired.

Comments on Wetlands Data

EPA commends Ohio EPA for applying its three wetland tools to the Scioto TMDL, thereby verifying its Level 1 metrics with Level 2 and 3 tools. Level 1 was used to characterize the wetland condition of the Middle Scioto in 2012, and was used in the TMDL process in 2013. Level 2 is the Ohio Rapid Assessment Method for Wetlands (ORAM) and Level 3 is the Vegetation Index of Biotic Integrity (VIBI), used in 2014 (high scores indicate wetland relatively protected from human disturbance). The results showed consistency in the answers provided by the rapid Level 2 method and the detailed Level 3 assessments for 10 sites in the Middle Scioto, and validated the accuracy of the probabilistic survey of 50 wetlands using only ORAM. EPA recommends that Ohio EPA expand the description on how this information was used in the TMDL. It might be useful to include a description of how the results of the Middle Scioto HUC 12 analysis will be used in TMDL development, implementation, and evaluation (Section I).

We appreciate the inclusion of the wetland status report out. Ohio EPA's proposal to identify a list of special waters as candidates for extra regulatory protection is a positive step and we encourage Ohio EPA to implement this approach.

Commendations on Drinking Water Protection and Inland Waters

EPA commends the Ohio EPA for continuing to review and update its assessment methodology for public drinking water use that first appeared in the 2006 IR. The 2016 methodology refines

¹ From p. 2 of the 2014 Biennial Report from ORSANCO. "(US EPA) guidance indicates "Independent Application" should be used when two or more contradictory data sets exist. The weight of evidence approach is directly opposed to US EPA's policy of independent application, which stipulates that if any one data set indicates impairment, then the water body should be designated as impaired. Although not consistent with EPA, ORSANCO concluded that a direct measurement of aquatic life using biological data is the most effective way of determining whether or not the Ohio River supports its aquatic life use designation."

the use of algal indicators, primarily cyanotoxins that were first added to the 2014 report. EPA encourages the Ohio EPA to expand monitoring or data collection to increase the percent of complete impairment decisions for the next cycle. EPA also encourages the incorporation of some of the possible future algal indicators being considered. (Section H).

EPA supports Ohio EPA's assessment for the drinking water use in inland waters, using nitrate, pesticide, and algae indicators:

- “To emphasize protection of the Public Drinking Water Supply beneficial use from HABs, Ohio is making inland lakes used for public water supply a focus for the next several years for monitoring and improving water quality through TMDLs or other approaches...” (Section C7);
- Moving forward, Ohio continues to intend to ... “sharpen focus on Public Water Supply Use,” as well as “incorporate HAB considerations into priorities (both PDWS use and ultimately Recreation use), among other priorities” (Section C8);
- “Ohio plans to explore how other types of plans (9 Element Watershed Plans for instance) or regulatory actions could be used more effectively to protect our highest quality waters and/or those that are of high importance for drinking water or recreation” (Section C8);
- “Ohio EPA plans on reviewing the algae impairment assessment methodology prior to the next reporting cycle to determine potential incorporation of U.S. EPA's cyanotoxin health advisories and revisions to the indicators of impairment” (Section H); and
- “Possible future algae indicators include: Total Trihalomethanes (TTHMs) or Haloacetic Acids (HAA5) MCL violations; elevated total organic carbon (TOC); taste and odor events; and additional treatment or source control requirements associated with algae impacts” (Section H).

EPA commends Ohio for establishing a new Harmful Algal Bloom Section to coordinate harmful algae management and response. Page C-29 states “Ohio EPA was required to implement actions that manage wastewater and limit nutrient loading and develop and implement protocols and actions to protect against cyanobacteria and public water supplies. Ohio adopted new and revised rules, effective June 1, 2016, to meet these requirements. Cyanotoxins are not currently regulated in recreational waters..... In 2016, Ohio EPA created a new Harmful Algal Bloom Section housed in the Division of Drinking and Ground Waters to manage both drinking water and recreational response.”

Minor corrections

Page C-41: typo “affected” parties

Page E-9: between Dillon and Greenbrier, missing Dudley Run-Rush Creek 05060001 02 03, shown in L1 and L4 as category 5 for Human Health, and between Lizard and Scippo missing Dear Creek Lake – Deer Creek 05060002 02 05 shown in L1 and L4 as category 5.

Thank you for the opportunity to comment on Ohio's draft 2016 IR. If you have any questions on these comments, please contact me at 312-886-0236.

Sincerely,

A handwritten signature in black ink that reads "Peter Swenson". The signature is written in a cursive style with a large, stylized "P" and "S".

Peter Swenson, Chief
Watersheds and Wetlands Branch

cc: Melinda Harris, OEPA
Cathy Alexander, OEPA